

No. 25–3936

IN THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

GRAND CANYON WOLF RECOVERY PROJECT, et al.,
Plaintiff-Appellants,

v.

BURGUM, et al.,
Defendant-Appellees,

On Appeal from the United States District Court for the District of Arizona
No. 4:22–cv–00303–SHR (Lead) | No. 4:22–cv–00453–SHR (Member)
Hon. Scott H. Rash

APPELLANTS' OPENING BRIEF – CORRECTED

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CORPORATE DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1, Plaintiff-Appellants Grand Canyon Wolf Recovery Project, New Mexico Wilderness Association, Western Watersheds Project and WildEarth Guardians hereby certify that none of their organizations has a parent corporation and that no publicly held corporation holds 10 percent or more of any Plaintiff-Appellant organizations' stock.

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INTRODUCTION

Following over 25 years of reintroduction efforts, there is a single experimental population of roughly 200 Mexican wolves in the wild in the United States. Failing to recognize the importance of this population to the species' survival in the wild, the U.S. Fish and Wildlife Service ("Service") determined the population should not be given all the protections afforded to it under the Endangered Species Act ("ESA" or "Act"). 16 U.S.C. § 1531 *et seq.* This case challenges that determination.

The experimental population provision of the ESA is an important tool the Service can use to carry out its duties to ensure the survival and recovery of the critically imperiled species protected by the Act. 16 U.S.C. § 1539(j). This tool allows the Service to reintroduce populations into areas where the species can (and should) exist when doing so will aid the recovery of the species. *Id.* When the Service uses this authority, the statute requires that it declare whether that population is "essential" or "nonessential" to the continued existence of the species. *Id.* § 1539(j)(2)(B). An "essential experimental population" is defined as one whose "loss would be likely to appreciably reduce the likelihood of the survival of the species in the wild." 50 C.F.R. § 17.80(b). This finding must be based solely on the best

available information and science. 16 U.S.C. § 1539(j)(2)(B); 50 C.F.R. § 17.81(c)(2).

In 2022, the Service issued a revised Section 10(j) rule for managing the experimental population of Mexican wolves, designating the experimental population as “nonessential.” 2-ER-000046,000050 (herein “2022 Section 10(j) rule” or “revised rule”). As discussed below, the flaws in the Service’s approach to determining essentiality for the experimental population of endangered Mexican wolves are two-fold.

First, the Service failed to comply with its own regulations—and the letter and intent of the ESA—in determining that the loss of the *only* wild population of wolves in the United States is not essential to the species’ continued existence in the wild. This cannot be the case. Rather, where the Service determines that to secure an imperiled species’ survival and recovery (1) there must be a viable population of that species in the wild in the United States and (2) that it will manage that species so that there is only one population in the United States, there can be only one conclusion: that population is “essential” to the species’ continued existence. The Service’s contrary conclusion is a patent violation of the law.

Second, the Service failed to consider the best available information and apply solely the best scientific and commercial data available. The Service’s attempt to rely

on the potential that Mexican wolves in captivity could replace the wild population is unsupported by the record and does not support a nonessential finding. Nor can the Service rely on a struggling recovery effort in Mexico to support its finding that the loss of the only wild population of Mexican wolves in the United States would not appreciably reduce the likelihood of the survival of the species in the wild.

In sum, the sole experimental population of Mexican wolves in the United States is necessarily “essential” to the species’ continued existence. Therefore, the Service’s nonessential determination in the 2022 Section 10(j) rule is arbitrary and capricious, or otherwise not in accordance with law, warranting vacatur by this Court. 5 U.S.C. § 706(2)(A).

STATEMENT OF JURISDICTION

The district court had subject matter jurisdiction under 28 U.S.C. § 1331 because Conservation Groups¹ claims arise under the ESA, 16 U.S.C. § 1531 *et seq.* The district court’s judgment was final, and this Court has jurisdiction under 28

¹ Appellants in this case include the Grand Canyon Wolf Recovery Project, New Mexico Wilderness Association, Western Watersheds Project, and WildEarth Guardians (collectively “Conservation Groups”). Conservation Groups were the plaintiff organizations in case number 4:22-cv-00453-TUC-SHR, as consolidated with case number 4:22-cv-00303-TUC-SHR in the U.S. District Court for the District of Arizona, Tucson division, in the court below. Plaintiffs in the lead case below, Center for Biological Diversity and Defenders of Wildlife, do not appeal the District Court order at issue here.

U.S.C. § 1291. The district court entered final judgment on April 22, 2025. 1-ER-000002. Conservation Groups filed an appeal on June 20, 2025, 5-ER-000975, within the time permitted by Fed. R. App. P. 4(a)(1)(B) and 28 U.S.C. § 2107(b).

STATEMENT OF THE ISSUES

- (1) Whether the Service’s determination that the experimental population of Mexican wolves is “nonessential” in the 2022 Section 10(j) rule is consistent with the plain language and plain meaning of the statute and regulations.
- (2) Whether the Service’s determination that the experimental population of Mexican wolves is “nonessential” in the 2022 Section 10(j) rule is based on an analysis of the best available information as required by the Act.

STATEMENT REGARDING THE ADDENDUM

Pursuant to Circuit Rule 28–2.7, the text of relevant statutory and regulatory provisions is set forth in an addendum submitted concurrently with this brief.

STATEMENT OF THE CASE

I. The Endangered Species Act

As President Richard Nixon keenly observed when signing the ESA into law:

Nothing is more priceless and more worthy of preservation than the rich array of animal life with which our country has been blessed. It is a many-faceted treasure, of value to scholars, scientists, and nature lovers alike, and it forms a vital part of the heritage we all share as Americans.

President Nixon's Statement on Signing the Endangered Species Act of 1973, 374 Pub. Papers 1027, 1027–1028 (Dec. 28, 1973). The Act establishes a comprehensive scheme for the protection of critically imperiled species in the United States, “provid[ing] the Federal Government with needed authority to protect an irreplaceable part of our national heritage – threatened wildlife.” *Id.*; *Ctr. for Biological Diversity v. Haaland*, 998 F.3d 1061, 1063 (9th Cir. 2021). In passing the ESA, Congress recognized that:

From the most narrow possible point of view, it is in the best interests of mankind to minimize the losses of genetic variations. The reason is simple: they are potential resources. They are keys to puzzles which we cannot solve, and may provide answers to questions which we have not yet learned to ask.

Tennessee Valley Auth. v. Hill, 437 U.S. 153, 178 (1978) (citing H.R. Rep. No. 93–412, pp. 4–5 (1973)).

Under the ESA, the Secretary of the Department of the Interior (“Secretary”) must identify species at risk of extinction, identify the species’ habitat, impose measures and protections to ensure the species continues to survive, and develop and implement plans to bring the species back from the brink. 16 U.S.C. §§ 1533, 1536, 1538, 1539.² The ESA protects both “endangered species,” which are “in

² The Secretary’s duties under the ESA are delegated to the Service pursuant to 50 C.F.R. § 402.01(b).

danger of extinction throughout all or a significant portion of its range,” 16 U.S.C. §§ 1532(6), (16), and “threatened species,” which are “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” *Id.* § 1532(20).

The ESA is “the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.” *Tennessee Valley Auth. v. Hill*, 437 U.S. at 180. The statute was enacted to forestall the extinction of species, whatever the cost, and to allow species to recover to the point where the protections afforded by the Act are no longer necessary. *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1070 (9th Cir. 2004). To this end, the ESA’s stated purpose is the conservation of listed species and the ecosystems upon which they depend, 16 U.S.C. § 1531(b). Federal agencies must further these goals through the use of their various authorities. 16 U.S.C. §1531(c)(1); *id.* § 1536(a)(1) (“All other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered species and threatened species.”).

“Conservation,” also referred to as “recovery,” is at the heart of the ESA. *Sierra Club v. U.S. Fish & Wildlife Serv.*, 245 F.3d 434, 438 (5th Cir. 2001) (“[T]he objective of the ESA is to enable listed species not merely to survive, but to recover

from their endangered or threatened status.”). Conservation is defined as “the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided [by the ESA] are no longer necessary.” 16 U.S.C. § 1532(3).³ Recovery, therefore, envisions self-sustaining populations that no longer require the protections or support of the Act. *Gifford Pinchot Task Force v. U. S. Fish & Wildlife Serv.*, 378 F.3d at 1070 (“[T]he ESA was enacted not merely to forestall the extinction of species (i.e., promote a species survival), but to allow a species to recover to the point where it may be delisted.”).

Importantly, recovery is assessed on the viability of species in the wild. The purpose of the [ESA] is not only to reduce threats to the species’ existence, but “to return the species to the point where they are viable components of their ecosystems.” H.R. Rep. No. 95-1625, at 5 (1978), *reprinted in* 1978 U.S.C.C.A.N. 9453, 9455; H.R. Rep. No. 97-835, at 30 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2860, 2871 (“In enacting the ESA, Congress recognized that individual species should not be viewed in isolation, but must be viewed in terms of their relationship to the ecosystem of which they form a constituent element.”). Indeed, as this Court explained, “the ESA’s primary goal is to preserve the ability of natural populations to

³ “Recovery” is defined in the implementing regulations as the “improvement in the status of listed species to the point at which listing is no longer appropriate under the criteria set out in section 4(a)(1) of the Act.” 50 C.F.R. § 402.02.

survive in the wild.” *Trout Unlimited v. Lohn*, 559 F.3d 946, 957 (9th Cir. 2009) (emphasis added). Thus, while the agency may use captive populations to help reestablish a species in the wild, the goal of recovery is “to promote populations that are self-sustaining without human interference.” *Id.*

To achieve the ESA’s goals, Congress gave the Service authority to reintroduce rare species if necessary for their recovery. *Defenders of Wildlife v. U.S. Fish & Wildlife Serv.*, 797 F.Supp.2d 949, 954 (D. Ariz. 2011) (citing 16 U.S.C. § 1536(a)(1) and 16 U.S.C. § 1532(3)). In 1982, Congress took additional steps to further reintroduction efforts by adding Section 10(j), 16 U.S.C. § 1539(j), to the ESA, which established procedures for the designation and management of “experimental populations.” 49 Fed. Reg. 33,885, 33,885 (Aug. 27, 1984). Under Section 10(j), the Service may authorize the release of an experimental population of an endangered species outside the species’ current range if doing so will “further the conservation of” that species. 16 U.S.C. § 1539(j). An “experimental population” is defined as “any population (including any offspring arising solely therefrom) authorized by the Secretary for release ..., but only when, and at such times as, the population is wholly separate geographically from nonexperimental populations of the same species.” *Id.* § 1539(j)(1). Once designated, an experimental population is

treated as “threatened” under the Act, even if the species is endangered elsewhere.
50 C.F.R. § 17.82; *see* 49 Fed. Reg. at 33,885.

Section 10(j) was designed to address frustration and opposition to reintroduction efforts. “Congress hoped the provisions of section 10(j) would mitigate industry’s fears [...and] actually encourage private parties to host such populations on their land.” *Wyoming Farm Bureau v. Babbitt*, 199 F.3d 1224, 1232 (10th Cir. 2000)(discussing legislative history); *see also United States v. McKittrick*, 142 F.3d 1170, 1174 (9th Cir. 1998)(explaining the additional flexibility provided by Section 10(j)).

Before authorizing a release under Section 10(j), the Service must find that doing so “will further the conservation of such species.” 16 U.S.C. § 1539(j)(2)(A). The Service must also develop species-specific Section 10(j) rules identifying the experimental population, 16 U.S.C. § 1539(j)(2)(B), the geographic area where the experimental population resides and where the regulations apply, 50 C.F.R. § 17.81(c)(1), and any specific management restrictions that may apply to the population, 50 C.F.R. § 17.81(c)(3).

Relevant here, the species-specific Section 10(j) rules must also include a determination, based solely on the best available science, as to whether the experimental population is “*essential* to the continued existence of an endangered

species or a threatened species.” 16 U.S.C. § 1539(j)(2)(B)(emphasis added); *see also* 50 C.F.R. § 17.81(c)(2). If the loss of the experimental population “would be likely to appreciably reduce the likelihood of the survival of the species in the wild,” the population is “essential.” 50 C.F.R. § 17.80(b). All experimental populations released into the wild that do not satisfy this definition of an essential population are deemed “nonessential.” *Id.*

While individuals within both essential and nonessential experimental populations are “treated as a threatened species,” there are differences in the protections they are afforded under the Act. 16 U.S.C. § 1539(j)(2)(C). For example, essential experimental populations are specifically afforded the protections under Section 7(a)(2) of the ESA, 16 U.S.C. § 1536(a)(2), while nonessential populations (except those occurring within the National Wildlife Refuge System or National Parks) are treated as species proposed for listing, and thus are subject to the lesser protections afforded under Section 7(a)(4) of the Act, *id.* § 1536(a)(4). 16 U.S.C. § 1539(j)(2)(C)(i). Moreover, essential populations qualify for designation of critical habitat, 16 U.S.C. § 1533(a)(3)(A), whereas critical habitat may not be designated for nonessential populations. 16 U.S.C. § 1539(j)(2)(C)(ii). Finally, because they are treated as “threatened” species, both essential and nonessential experimental populations are subject to special Section 4(d) or 10(j) regulations, which provide

flexibility for their management. 16 U.S.C. § 1539(j)(2)(C); 16 U.S.C. § 1533(d); *see also* 49 Fed. Reg. 33,885, 33,886 (Aug. 27, 1984).

II. Factual Background

A. The Endangered Mexican Wolf

The Mexican gray wolf (“Mexican wolf”) “is the rarest, southern-most occurring, and most genetically distinct subspecies of all the North American gray wolves.” 2-ER-000243. Mexican wolves historically numbered in the thousands and were distributed across large portions of the Southwest, mostly in mountainous terrain that supports populations of deer and elk. 2-ER-000147. By the mid-1900s, however, government and private eradication efforts effectively wiped out the native population. *Id.* By the 1970s, the Mexican wolf was extirpated from the United States, and by the 1980s, it was considered extirpated from Mexico. *Id.*

In 1976, the Mexican wolf was listed as an endangered subspecies of gray wolf under the ESA, even though no wild populations were known to remain. 2-ER-000146. In 1978, the Mexican wolf was reclassified and listed as a gray wolf in the contiguous United States. *Id.* After the ESA listing, the Service initiated recovery programs for gray wolves in three geographic areas, including the Southwest. *Id.* In 1982, the Service prepared a recovery plan for southwestern wolf recovery. *Id.* However, the 1982 recovery plan did not contain recovery criteria because the status

of the species at the time “was so dire that the recovery team could not foresee full recovery and eventual delisting.” 2-ER-000147. The 1982 recovery plan focused instead on the wolf’s “immediate survival.” *Id.* The objective was to start a captive breeding program with the hopes of reestablishing a viable, self-sustaining population of Mexican wolves in the wild. *Id.* In accordance with the plan, the Service initiated a captive-breeding program “with the capture of the last remaining Mexican wolves in the wild in Mexico and subsequent addition of wolves from captivity in Mexico and the United States.” 2-ER-000148. All Mexican wolves alive today descend from the seven founding wolves of the captive-breeding program. *Id.* Even after decades of conservation and reintroduction efforts, with fewer than 300 in the wild in Arizona and New Mexico, Mexican wolves are the “rarest and most genetically distinct subspecies of all the North American gray wolves” and remain one of our nation’s most imperiled species. 2-ER-000243.

B. The Experimental Population of Mexican Wolves

Mexican wolves in the wild today are managed as an experimental, non-essential population under the ESA’s Section 10(j) pursuant to a species-specific ESA Section 10(j) rule. 2-ER-046 (as codified at 50 C.F.R. § 17.84(k)). The Section 10(j) Rule provides exceptions from certain provisions of the Act (such as take prohibitions) and other special management provisions. *Id.*

In 1998 – the Service’s initial Section 10(j) rule for the Mexican wolf – the Service determined that all released wolves would be deemed nonessential because: (1) there were only 11 Mexican wolves released in the wild at the time and (2) there was a large “surplus” of roughly 136 Mexican wolves in a captive breeding program that could easily replace the small number of wolves in the wild (if lost). 2-ER-000303,000306 (1998 Section 10(j) Rule). The Service reasoned that the experimental population of Mexican wolves in the wild was nonessential because it “made up only 7 percent of all Mexican wolves in the world” at that time. 2-ER-000303,000306.

Over 20 years later, in 2015, the Service revised the Section 10(j) rule for Mexican wolves but refused to revisit the nonessential finding of the 1998 rule. 2-ER-000172 (2015 Section 10(j) Rule). This was despite the fact that the number of Mexican wolves in the wild had grown to 75 in 2015, constituting roughly 22 percent of all Mexican wolves in the world, and would thus be harder to replace. *Id.*

In 2018, the district court rejected the Service’s refusal to make a new essentiality determination in the revised 2015 Section 10(j) rule. *Ctr. for Biological Diversity v. Jewell*, No. CV-15-00019, 2018 WL 1586651, at *21 (D. Ariz. Mar. 31, 2018). The court explained, *inter alia*, that the 2015 rule triggered the need for a new essentiality determination because new releases were being authorized outside the

species' current range. *Ctr. for Biological Diversity*, 2018 WL 1586651 at *19–21. The court also recognized that much had changed since the 1998 rule, including a new listing as a subspecies, new science, and increased numbers of Mexican wolves in the wild and in captivity. *Id.* at *21. The court noted that while the captive population of Mexican wolves had grown to roughly 250 wolves since 1998, the population “is aging” and had already “lost much of its genetic diversity,” *id.*, which raised additional questions about whether it would still be able to replace the wild population, which had grown to roughly 97 individuals, if that population were lost. *Id.* For these reasons, the Service’s decision to maintain and not revisit the 1998 nonessential determination did “not satisfy the agency’s duty to base its decision on the best available science and information or to articulate a rational connection between the facts found and the conclusion reached.” *Id.* Accordingly, the court found that the agency’s decision to maintain the wolf’s nonessential status in the 2015 rulemaking “was arbitrary and capricious” and remanded the matter back to the Service for a new determination. *Id.*

On remand, in the 2022 revised Section 10(j) rule, the Service once again opted to retain the original 1998 nonessential designation for the experimental population of Mexican wolves. 2-ER-000050. The agency reasoned maintaining nonessential status remained warranted because: (1) the captive-breeding program

could replace the roughly 200 wolves in the wild population, if lost, and restart the reintroduction program; (2) nonessential status gives the Service more flexibility to work with local communities, other agencies, and states; and (3) there is now a second wild population of roughly 45 wolves with protections in Mexico. 2-ER-000050.

As of the time of the 2022 Section 10(j) Rule, the experimental population of Mexican wolves consisted of 196 individuals in the wild in the United States. 2-ER-000048-49. At the time of the rule, there were also approximately 45 wolves in the wild in Mexico, 2-ER-000050, and 387 wolves in the captive breeding program as well. 3-ER-000324. Thus, the experimental population made up roughly 81 percent of all Mexican wolves in existence in the wild, and roughly 31 percent of all Mexican wolves in the world overall (including those in captivity). The experimental population – residing solely in the Mexican wolf Experimental Population Area (“MWEPA”) – remains the only truly viable Mexican wolf population in the wild currently. 2-ER-000048-49.

III. The District Court Proceedings Below

Shortly after publication of the 2022 Section 10(j) Rule, a number of conservation groups – including Appellants here – sued the Service for violations of the ESA and APA. In April 2025, the U.S. District Court for the District of Arizona,

Tucson Division, issued an order denying conservation groups' Motions for Summary Judgment and granting the Service's Cross-Motions for Summary Judgment. 1-ER-000003. In pertinent part, conservation groups in the present appeal challenged the Service's 2022 determination that the experimental population of Mexican wolves is nonessential, arguing that the determination violated the ESA, APA, and NEPA. 1-ER-000030. Conservation Groups argued that the nonessential finding was arbitrary and capricious, or otherwise not in accordance with the law, because the Service (1) wrongly relied on the captive breeding program, (2) failed to evaluate or analyze whether the captive breeding program is capable of replacing the wild population if lost, (3) failed to rely solely on biological factors and apply the best available science, and (4) wrongly relied on the struggling population in Mexico. *Id.* The district court ruled against Conservation Groups on all claims, upholding the Service's nonessential determination in the 2022 Section 10(j) Rule. 1-ER-000030-31. Conservation Groups now pursue this narrow appeal of the district court's finding that the Service's nonessential determination for the experimental population of Mexican wolves complied with the ESA and APA.

STANDARDS OF REVIEW

This Court reviews a district court's grant of summary judgment de novo. *Greater Yellowstone Coal, Inc. v. Servheen*, 665 F.3d 1015, 1023 (9th Cir. 2011) (citation omitted). This challenge is brought under the Endangered Species Act ("ESA"), 16 U.S.C. § 1531 *et seq.*, and the Administrative Procedure Act ("APA"), 5 U.S.C. § 706(2). In reviewing ESA claims, courts borrow the standard from the APA. *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 481 (9th Cir. 2011). The APA directs that a reviewing court "shall" set aside agency actions, findings, or conclusions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *Japanese Vill., LLC v. Fed. Transit Admin.*, 843 F.3d 445, 453 (9th Cir. 2016) (quoting 5 U.S.C. § 706(2)(A)). Under the APA, a court must not substitute its judgment for that of the agency, but must nonetheless engage in a "thorough, probing, in-depth review." *Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. 402, 415 (1971). In conducting this review, the Court's job is to "ensure that the agency considered the relevant factors and articulated a rational connection between the facts found and the choices made." *Greater Yellowstone Coal*, 665 F.3d at 1023 (quoting *Nw. Ecosystem All. v. U.S. Fish & Wildlife Serv.*, 475 F.3d 1136, 1140 (9th Cir. 2007)). Although this standard of review is narrow, it requires that this

Court conduct a “searching and careful” review. *Japanese Vill., LLC*, 843 F.3d at 453–54 (quoting *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 378 (1989)).

“Whether agency action is ‘not in accordance with law’ is a question of statutory interpretation, rather than an assessment of reasonableness in the instant case.” *Se. Alaska Conservation Council v. U.S. Forest Service*, 443 F. Supp. 3d 995, 1005 (D. Alaska 2020)(citing *Singh v. Clinton*, 618 F.3d 1085, 1088 (9th Cir. 2010)).

Agency action is arbitrary and capricious if the agency has “entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

SUMMARY OF THE ARGUMENT

In its decision, the Service determined that the sole experimental population of Mexican wolves in the United States is “nonessential” to the species’ continued existence. 2-ER-000050. The Service relies on two primary factors in making this finding: (1) that it can replace the experimental population (if lost) with wolves in captivity and (2) that a small population in Mexico will still exist if the experimental population in the United States is lost. *Id.* The Service’s reasoning is incorrect for at least two reasons.

First, the Service failed to comply with the law in determining that the loss of the *only* wild population of wolves in the United States is not essential to the species' continued existence in the wild. Specifically, because the Service has determined that to secure Mexican wolves' survival and recovery it will maintain a single population of wolves, that population is "essential" to the species' continued existence in the wild under the statute and the Service's implementing regulations. Here, the Service has made clear that it intends for the experimental population at issue to be the *sole* population of wolves in the United States. As such, there can be no question that the loss of this population, therefore, will appreciably reduce the likelihood of the species' survival in the wild. The Service's contrary conclusion is a patent violation of the law.

Second, the Service failed to consider the best available information and apply solely the best scientific and commercial data available to its essentiality analysis as required by the statutory and regulatory text. The Service's reliance on a captive population to replace the experimental population (i.e., the majority of Mexican wolves that exist in the wild today) to justify a nonessential determination is not supported by the record. Nor did the Service adequately explain how the existence of a few individual Mexican wolves in Mexico supports its nonessential determination.

For these reasons, the agency's nonessential determination for Mexican wolves in the 2022 Section 10(j) rule is arbitrary and capricious, or otherwise not in accordance with law, and must be overturned. 5 U.S.C. § 706(2)(A); *State Farm*, 463 U.S. at 43.

ARGUMENT

I. The Service's Failure to Designate the Experimental Population of Mexican Wolves as Essential Violates the ESA and its Implementing Regulations.

The Service's determination that the experimental population of Mexican wolves is "nonessential" is untenable given the clear statutory and regulatory language. Under the Service's own regulation, an experimental population is "essential to the continued existence of the species," 16 U.S.C. § 1539(j)(2)(B), when the loss of that population is "likely to appreciably reduce the likelihood of the species' survival in the wild." 50 C.F.R. § 17.80(b). Here, because the population is the *only* wild population of Mexican wolves in the United States—and under the Service's recovery framework for the species, this population is the *only* wild population of wolves the Service will allow to exist in the United States—the loss of this population will unquestionably reduce the likelihood of the species' survival in the wild. As such, this population is necessarily essential to the species' continued existence. The Service's contrary finding is based on an impermissible interpretation

and application of the statutory and regulatory text, in patent violation of the law. 5

U.S.C. § 706(2)(A); *State Farm*, 463 U.S. at 43.

A. The Service Must Apply its Regulations Defining an “Essential Experimental Population.”

It is contrary to law for an agency to disregard its own regulations and policies. See *Nat'l Ass'n of Home Builders v. Norton*, 340 F.3d 835, 852 (9th Cir. 2003); *U. S. v. Nixon*, 418 U.S. 683, 695 (1974) (“So long as this regulation is extant it has the force of law.”). This Court has routinely held agencies accountable to substantive and procedural requirements in their own regulations. See, e.g., *Backcountry Against Dumps v. Fed. Aviation Admin.*, 77 F.4th 1260, 1271 (9th Cir. 2023) (holding the agency “failed to comply with its own regulation by not providing notice of the second comment period to” the plaintiff); *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 932–33 (9th Cir. 2008) (holding that the agency’s “analysis was structurally flawed” where it ignored an important aspect of the controlling regulation); *Nat'l Ass'n of Home Builders*, 340 F.3d at 852 (“Having chosen to promulgate the *DPS Policy*, the FWS must follow that policy”). Indeed, “[a] court's duty to enforce an agency regulation is most evident when compliance with the regulation is mandated by the Constitution or federal law.” *United States v. Caceres*, 440 U.S. 741, 749 (1979).

As discussed in detail below, here, Congress has directed the Service to act—i.e., to declare which experimental populations are essential to the species’ continued existence. 16 U.S.C. § 1539(j)(2)(B). Importantly, identifying which experimental populations are essential to the species’ continued existence furthers the fundamental purpose of the Act and is an important part of the Service’s mandate to use its authority to bring imperiled species back from the brink of extinction. 16 U.S.C. § 1531. The Service’s regulations to that end establish a clear and unambiguous standard to apply. *See* 50 C.F.R. § 17.80(b)(defining essentiality). The failure to comply with this legislative mandate and apply these regulations in a manner consistent with their plain meaning violates the law.

1. Congress Directed the Service to Determine Whether Each Experimental Population is Essential to the Continued Existence of the Species.

To begin, the ESA requires the Service to determine which experimental populations are essential to the species’ continued existence each time it establishes such a population. 16 U.S.C. § 1539(j)(2)(B) (“Before authorizing the release of any population under subparagraph (A), the Secretary *shall by regulation identify the population and determine*, on the basis of the best available information, *whether or not such population is essential to the continued existence of an endangered species or a threatened species.*”) (emphasis added). Congress’s use of the word “shall” indicates that the

essentiality determination is mandatory. See *Brower v. Evans*, 257 F.3d 1058, 1067 n.10 (9th Cir. 2001) (“‘Shall’ means shall.” (quoting *Ctr. for Biological Diversity v. Norton*, 254 F.3d 833, 837–38 (9th Cir. 2001))); see also *United States v. Monsanto*, 491 U.S. 600, 607 (1989) (explaining that using “shall ... Congress could not have chosen stronger words to express its intent that forfeiture be mandatory”).

Indeed, the designation of a population as “essential” carries with it important additional protections. 16 U.S.C. § 1539(j)(2)(C). Specifically, federal projects that may affect “essential” populations must undergo consultation pursuant to Section 7(a)(2) of the Act. 50 C.F.R. § 17.83. Additionally, the Service may designate critical habitat in the areas where the population is established pursuant to Section 4(a). 50 C.F.R. § 17.81(f). The existence of these additional protections for some—but not all—experimental populations makes clear that Congress intended for the Service to make this determination in every instance. Because the Service has established regulations pursuant to this directive, it must follow those regulations. *Wallace v. Christensen*, 802 F.2d 1539, 1552 n.8 (9th Cir. 1986) (explaining an agency is “bound by its own regulations so long as they remain in force.”). In determining the only wild population of Mexican wolves in the United States to be “nonessential,” the Service has not complied with its own regulations.

2. The Service’s Interpretation of the Phrase “Essential to the Continued Existence” of the Species is Consistent with the Letter and Intent of the ESA.

When reviewing an agency’s action under the APA, “[c]ourts must exercise their independent judgment in deciding whether an agency has acted within its statutory authority,” by “us[ing] every tool at their disposal to determine the best reading of the statute and resolve the ambiguity.” *Loper Bright Ent. v. Raimondo*, 603 U.S. 369, 400–01 (2024). While the Service’s regulations are not being challenged here, the text, the context, the legislative history, and the longstanding agency’s interpretation all point to the best reading of Section 10(j)(2)(B) to be that an experimental population is “essential” if its “loss would be likely to appreciably reduce the likelihood of the survival of the species in the wild.” 50 C.F.R. § 17.80(b); *Cf. Ctr. for Biological Diversity*, 2018 WL 1586651, at *19 n. 19 (“The Court does not find any conflict between Section 10(j)(2) and 50 C.F.R. § 17.81. The ESA’s implementing regulations effectively restate the requirements of Section 10(j).”).

While the phrase “essential to the continued existence” of the species is not the paradigm of clear legislative drafting, the context and legislative history of the statute clarify that Congress intended the Service to determine the role each experimental population will play in ensuring the species’ survival in the wild.

Indeed, “oftentimes the meaning—or ambiguity—of certain words or phrases may only become evident when placed in context.” *United States v. Alaska*, 151 F.4th 1124, 1137 (9th Cir. 2025) (quoting *King v. Burwell*, 576 U.S. 473, 486 (2015)) (internal quotations omitted). As a result, when interpreting a statute, the Court “must read the words in their context and with a view to their place in the overall statutory scheme.” *Id.* at 1138 (internal quotations omitted). Applying these principles here, the underlying purpose of the ESA and its legislative history support the Service’s regulatory interpretation that an “essential experimental population” is “an experimental population whose loss would be likely to appreciably reduce the likelihood of the survival of the species in the wild.” 50 C.F.R.17.80(b).⁴

⁴ Notably, in *Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv.*, this Court concluded that “the only plausible construction” of “essential” in the ESA’s definition of “critical habitat” is an “area that is indispensable or necessary to conservation.” 67 F.4th 1027, 1038 (9th Cir. 2023). While typically a word “is presumed to bear the same meaning throughout a text,” *Meza-Carmona v. Garland*, 113 F.4th 1163, 1167 (9th Cir. 2024), the “fundamental canon of statutory construction that the words of a statute must be read in their context and with a view to their place in the overall statutory scheme,” means that in some instances “the presumption of consistent usage readily yields to context, and a statutory term—even one defined in the statute—may take on distinct characters from association with distinct statutory objects calling for different implementation strategies.” *Util. Air Regul. Grp. v. Env’tl Prot. Agency*, 573 U.S. 302, 319–20 (2014) (internal citations and quotations omitted). Indeed, “oftentimes the meaning—or ambiguity—of certain words or phrases may only become evident when placed in context.” *United States v. Alaska*, 151 F.4th at 1137 (quoting *King v. Burwell*, 576 U.S. 473, 486 (2015)) (internal quotations omitted). Applying these principles here, as discussed below, the legislative history of Section 10(j) provides ample support that

First, the purpose of the ESA supports this interpretation. The ESA is “the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.” *Hill*, 437 U.S. at 180. The statute was enacted to forestall the extinction of species, whatever the cost, and to ensure species recover to the point where the protections afforded by the ESA are no longer necessary. *Gifford Pinchot Task Force*, 378 F.3d at 1070. Thus, the ESA’s primary goal is to get listed species off the life-support system of human intervention and preserve their ability to independently survive and be recovered in the wild, on their own. See 16 U.S.C. § 1531(b) (purpose of ESA is to conserve “ecosystems” upon which species depend); 16 U.S.C. § 1532(3) (defining “conservation” as using all methods necessary to bring listed species to the point at which the measures provided by the ESA are no longer necessary). Therefore, as this Court has explained, “the ESA’s primary goal is to preserve the ability of natural populations to survive *in the wild*.” *Trout Unlimited v. Lohn*, 559 F.3d at 957 (emphasis added). The goal of the ESA is not to maintain populations via a perpetual captive breeding program. *Cal. State Grange v. Nat’l*

Congress intended that an “experimental population” is “essential” if its “loss would be likely to appreciably reduce the likelihood of the survival of the species in the wild.” H.R. Rep. No. 97-835, at *33–34 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2860, 2871 (“The Secretary shall consider whether the loss of the experimental population would be likely to appreciably reduce the likelihood of survival of that species in the wild. If the Secretary determines that it would, the population will be considered essential to the continued existence of the species.”).

Marine Fisheries Serv., 620 F.Supp.2d 1111, 1156–57 (N.D. Cal. 2008). Therefore, the underlying purpose of the Act itself is to promote the survival (and eventual recovery) of listed species in the wild.

To achieve the ESA’s goals of recovering species in the wild, Congress gave the Service authority to reintroduce rare species if necessary. *Defenders of Wildlife v. U.S. Fish & Wildlife Serv.*, 797 F. Supp. 2d at 954 (citing 16 U.S.C. § 1536(a)(1) and 16 U.S.C. § 1532(3)). To this end, the overarching goal—and, indeed, mandate—of the experimental population reintroduction program authorized under Section 10(j) is to contribute to the conservation—that is, the recovery—of the species in the wild. 16 U.S.C. § 1539(j)(2)(A) (before authorizing a release under Section 10(j), the Service must find that doing so “will further the conservation of such species”). The program is a potentially powerful tool in achieving the Act’s goal of recovering imperiled species in the wild and restoring the natural ecosystems upon which they depend. 16 U.S.C. §§ 1539(j), 1531(b); *See also Wyoming Farm Bureau*, 199 F.3d at 1232 (describing Section 10(j)’s benefits)); *United States v. McKittrick*, 142 F.3d at 1174 (same). “[A] word is known by the company it keeps.” *Yates v. United States*, 574 U.S. 528, 543 (2015). The “continued existence” of the species (as used in Section 10(j)’s essentiality mandate) should be read to mean “survival of the species in the wild.”

As explained by the Service in its “Policy Regarding Controlled Propagation of Species Listed Under the ESA,” the statute emphasizes the restoration and conservation (recovery) of species in the wild—in their natural habitats—and thus, this is the first and foremost priority. 65 Fed. Reg. 56,916 (Sept. 20, 2000).

Propagation through captive breeding programs, however, is an important “tool available to [the agency] to achieve this end.” *Id.* at 56,917. It is an “essential tool for the conservation and recovery of listed species” that is used to “reverse population declines and to successfully return listed species to suitable habitat in the wild.” *Id.* at 56,919. Captive breeding programs thus take on an important, indeed critical, “supportive role” in the recovery of certain species in the wild. *Id.* But such programs are merely tools to achieve the ESA’s substantive conservation goals and are not substitutes for addressing the threats to the species that caused and continue to cause its decline in the wild. *Id.* Nor are captive breeding programs a substitute for meeting the ESA’s substantive goals. *Id.*; *see also* 16 U.S.C. §§ 1531(b) (explaining ESA purpose), 1532(3) (defining “conservation”); 50 C.F.R. § 402.02 (defining “recovery”).

The Act’s legislative history confirms that the Service’s regulation defining essentiality comports with Congressional intent underlying the ESA. *United States v. Lillard*, 935 F.3d 827, 834 (9th Cir. 2019) (“If the statutory language lacks a plain

meaning, we may ‘employ other tools, such as legislative history, to construe the meaning of ambiguous terms.’” (quoting *Benko v. Quality Loan Serv. Corp.*, 789 F.3d 1111, 1118 (9th Cir. 2015)); *Pac. Coast Fed’n of Fishermen’s Associations, Inc. v. Nickels*, 150 F.4th 1260, 1271 (9th Cir. 2025) (explaining the court turns to legislative history for “guidance” when the statute is ambiguous). Specifically, it is clear Congress expected that the Service would “consider whether the loss of the experimental population would be likely to appreciably reduce the likelihood of survival of that species in the wild,” and if so, would designate the population as “essential to the continued existence of the species.” See H.R. Rep. No. 97-835, at 33–34 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2860, 2871. Indeed, Congress noted that the Act’s purpose is to recover the species so that they play their important roles in the ecosystems they inhabit. See H.R. Rep. No. 95-1625, at 5 (1978), *reprinted in* 1978 U.S.C.C.A.N. 9453, 9455.

3. The Service’s Definition of an “Essential Experimental Population” is Unambiguous.

When interpreting a regulation, the process begins with giving the regulatory language its plain and ordinary meaning, applying the traditional tools of construction. *Kisor v. Wilkie*, 588 U.S. 558, 581 (2019) (“[A] court must apply all traditional methods of interpretation to any rule, and must enforce the plain meaning those methods uncover.”); *League of Calif. Cities v. Fed. Comm. Comm’n.*, 118

F.4th 995, 1015 (9th Cir. 2024)(“Regulations are interpreted according to the same rules as statutes, applying traditional rules of construction.”) (citing *Minnick v. Comm’r*, 796 F.3d 1156, 1159 (9th Cir. 2015)).

Starting with the plain meaning of the terms used in the regulatory definition (and the congressional report in Section 10(j)’s legislative history), “appreciable” is defined as “[c]apable of being estimated, weighed, judged of, or recognized by the mind. Capable of being perceived or recognized by the senses. Perceptible but not a synonym of substantial.” Black’s Law Dictionary 92 (5th ed. 1979); *see also Ware v. Gower*, No. 2:13-cv-0979, 2016 WL 1734750, at *3 (E.D. Cal. May 2, 2016) (explaining Webster’s Third New International Dictionary (1981) defines “appreciable” to mean “capable of being perceived and recognized”). And “reduce” means “to make smaller or less in amount, degree, or size.” New Oxford American Dictionary (2024). Putting these together, the plain meaning of the Service’s regulation is that an experimental population is essential to the species’ continued existence if the loss of that population would likely result in a perceptible or recognizable negative impact to the chances of the species’ survival in the wild. This is the most natural and plain reading of the regulation. “If [a] regulation is unambiguous and ‘there is only one reasonable construction of [the] regulation,’ then” the Court simply applies that meaning. *United States v. California Stem Cell*

Treatment Ctr., Inc., 117 F.4th 1213, 1222 (9th Cir. 2024) (quoting *Mountain Cmty. for Fire Safety v. Elliott*, 25 F.4th 667, 675 (9th Cir. 2022)) (alterations in original).

This is the case here.

B. The Sole Experimental Population of Mexican Wolves in the United States is Essential to the Species' Continued Existence in the Wild.

Under the Service's regulatory framework, the loss of the *only* population of Mexican wolves in the wild in the United States will undoubtedly have a measurable, negative impact on the species' likelihood of survival in the wild. In fact, based on Mexican wolf demographics at the time of the rule, if the experimental population were lost, all of the wolves in the wild in the United States and 81 percent of Mexican wolves known to exist in the wild would be lost.⁵ This fact alone demonstrates the measurable, negative loss of the wild population that would occur, necessarily harming the species' chances for survival in the wild, and rendering an essential finding here appropriate. But the Service's failure to recognize that the

⁵ At the time of the rule, there were approximately 196 Mexican wolves in the wild in the United States, and approximately 45 Mexican wolves in the wild in Mexico. 2-ER-000048-50. Thus, the total population of Mexican wolves in the wild at the time of the rule was approximately 241. *Id.* Additionally, there were approximately 387 Mexican wolves in captivity at the time of the rule. 3-ER-000324. Thus, the total population of Mexican wolves in existence in the world in 2022 was approximately 628. *Id.*

experimental population of Mexican wolves is essential to the continued existence of the species here was also legal error for at least three additional reasons.

First, the Service has decided to establish a single experimental population of Mexican wolves in the United States. 2-ER-000124-26(2017 Recovery Plan).⁶ This population is not only the *single* Section 10(j) experimental population of the species, but it is the *only* population of Mexican wolves in the wild in the United States. As such, it is necessarily essential to the species' continued existence. Stating the obvious: the existence of a single population in the wild is essential—applying its plain meaning, indispensable or necessary, *see Ctr. for Biological Diversity*, 67 F.4th at 1038—to the *continued* existence of that population in the wild. Stated differently, if the question is whether the loss of the population in the wild will measurably affect the likelihood of the species' survival in the wild, the loss of the *only population* in the wild would meet this test in every case, because when it was lost, there would be no wild population left.

⁶ Conservation Groups continue to disagree with the Service's approach to establish only one population of Mexican wolves in the United States as it does not comport with the best available science, as was formerly acknowledged in the Service's 2012 draft recovery plan, which stated that recovery of the species would require at least three separate, but connected, populations of Mexican wolves in the wild, totaling at least 750 wolves in a well-connected metapopulation across a recovery region extending across Arizona, New Mexico, southern Utah, and southern Colorado. 3-ER-000497-501;3-ER-000527-531 (2012 Draft Recovery Plan).

This is true even if that population *could* be replaced in time. Consider a situation where only one bridge crosses an otherwise impassable river. There would be no reasonable argument that the bridge would *not* be considered essential for crossing the river. This would be true even if it were washed out and could be replaced at some point in the future. For the time when it is gone, there would be no way to cross the river. The same is true here. If the experimental population of Mexican wolves were lost, at the time of such loss, there would be no wild population left in the United States. In short, if it must be replaced to exist again, it must be “essential.”

In fact, the Service appears to acknowledge this by insisting that if the population were lost, the Service would replace it. 2-ER-000050. The Service’s assurance that the captive breeding program is capable of producing a sufficient number of “surplus” wolves to restart the experimental population if it were lost, *proves* the essentiality of the population rather than undermines it, as the Service suggests. *Id.* Of course, for an experimental population to exist there will always be another “population” of the species—the individuals that make up the experimental population, at least initially, will have to be drawn from somewhere—but when that source population is a captive population, its mere existence does not render the wild population “nonessential.” This is manifest because the captive population is a

tool, and only that, towards establishing a surviving and eventually recovered population of Mexican wolves in the wild. *Trout Unlimited v. Lohn*, 559 F.3d at 957 (explaining the ESA’s aim is “to preserve the ability of natural populations to survive in the wild” and to “promote populations that are self-sustaining without human interference”); *Cal. State Grange*, 620 F.Supp.2d at 1156–57 (explaining the goal is not to maintain populations via a perpetual captive breeding program alone); U.S. Fish & Wildlife Serv., Policy Regarding Controlled Propagation of Species Listed Under the ESA, 65 Fed. Reg. 56,916 (Sept. 20, 2000) (explaining the captive breeding program is an “essential tool for the conservation and recovery of listed species” that is used to “reverse population declines and to successfully return listed species to suitable habitat in the wild”). A suggestion otherwise is wholly inconsistent with the letter and intent of the ESA’s mandate that imperiled species are to eventually be recovered to the point at which the Act’s protections are no longer necessary. *See* 16 U.S.C. §§ 1531(b), (c)(1), 1532(3) (defining “conservation”); *see also Trout Unlimited v. Lohn*, 559 F.3d at 957.

Second, the Service has defined the geographic boundaries of the experimental population to cover what it considers the only remaining viable

Mexican wolf habitat in the United States.⁷ As a result, the experimental population's geographic range is the species' *entire* range in the United States. It is 100 percent of the range that the Service is allowing for the recovery of Mexican wolves in the United States to occur. 2-ER-000051. Thus, if the population were to disappear from this area—which constitutes the *only* habitat in the wild in the United States where Mexican wolves are allowed to survive and recover—such loss would measurably lessen the species' likelihood of survival in the wild because the species would, once again, be effectively extirpated from the entirety of its range in the wild in the United States.

Moreover, the rule's geographic boundary renders the Service's passing suggestion that it would be able to “restart a population in the MWEPA *or elsewhere* in suitable habitat in the United States if the unexpected loss of the MWEPA were to occur,” 2-ER-000050 (emphasis added), effectively meaningless. First, the Service has made it clear that it has no intention of working to establish Mexican wolf populations anywhere else outside of the MWEPA in the United States. 2-ER-

⁷ As explained *supra* note 6, Conservation Groups disagree with the Service's recovery approach and its decision to limit the wild population in the United States to a single population located in New Mexico and Arizona south of Interstate-40; however, those are the facts relevant to the analysis here.

000124-26; 2-ER-000104-06.⁸ To the contrary, it is actively thwarting the movement of Mexican wolves outside of the experimental population's bounds and is actively working to ensure that wolves *do not* establish themselves outside of the experimental population area. 2-ER-000051 ("If Mexican wolves travel outside of the MWEPA, we intend to capture and return them to the MWEPA or place them in captivity"). Second, the Service has provided no evidence that it considers any areas outside of the MWEPA in the United States suitable for a reintroduction effort, or that any such area would be able to support a self-sustaining population of wolves.⁹ In fact, the Service has repeatedly argued against recovering the species elsewhere in the suitable range outside of the MWEPA. 2-ER-00065-66; 87 Fed. Reg. 39,348, 39,367-69 (July 1, 2022)(2022 Section 10(j) rule)(responding to commenters' requests for consideration of modifying the geographic boundary in the revised rule and refusing). In short, the Service's approach focusing on reintroducing—and then limiting—Mexican wolves to *only* one population in the MWEPA, makes clear that this experimental population—*the only one*—is essential to the continued existence of the species in the wild.

⁸ See *supra* note 6 (explaining Conservation Groups disagree with the Service's recovery approach but those are the facts relevant to the analysis here).

⁹ See *supra* note 6.

This conclusion is mandated by the Service's approach to wolf management. In 2018, the district court remanded the Service's 2015 Section 10(j) rule requiring the Service to make a new essentiality decision because it had expanded the geographic scope of the recovery area. *Ctr. for Biological Diversity*, 2018 WL 1586651 at *19-20. On remand, in the 2022 Section 10(j) rule – the action challenged here – the Service refused to consider a recovery approach that would allow for multiple populations of Mexican wolves in the wild in the United States, or a recovery approach that allowed for Mexican wolves to roam and recover outside the boundaries of the MWEPA. 87 Fed. Reg. 39,369 (responding to comments raising concerns with the Service's approach to align the revised rule with the recovery plan); 87 Fed. Reg. 39,367–69 (refusing to revisit the geographic boundary for the single experimental population). But by maintaining its recovery approach to allow for only *one* experimental population of Mexican wolves in *one* geographic area in the United States (the MWEPA), the Service has, of its own volition, effectively ensured this single experimental population of Mexican wolves is essential.

Third, the experimental population is coextensive with the population of Mexican wolves that the Service intends to achieve the recovery of the species in the United States. Specifically, the Service states that it “intend[s] to manage the MWEPA population to achieve the recovery criteria in the revised recovery plan for

a population of Mexican wolves in the United States.” 2-ER-000049. The Recovery Plan, in turn, envisions a single population of Mexican wolves in the United States. 2-ER-000124-126; 2-ER-000104-06. As a result, the Service’s approach here has made it so that the experimental population will likely be (or, at least under the Service’s plan, is envisioned to be) the *only* population of Mexican wolves in the United States going forward.¹⁰ Because it is axiomatic that a species must be able to survive before it can recover, *cf. Gifford Pinchot Task Force*, 378 F.3d at 1069 (“[I]t is logical and inevitable that a species requires more critical habitat for recovery than is necessary for the species survival”), the Service’s approach to the Mexican wolf’s recovery makes clear that *this* population is essential to the species’ continued existence.

Moreover, the Service’s recovery approach demonstrates why the loss of the United States’ population will likely appreciably reduce the species’ likelihood of survival in the wild, notwithstanding the existence of a small population in Mexico.

¹⁰ The Service’s focus on supporting a viable population in the United States is consistent with, and even compelled by, the ESA. See *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 685 (D.D.C. 1997) (holding “the FWS cannot be allowed to dismiss the contiguous United States population of a species merely because it is plentiful elsewhere.”) Thus, as discussed below, the existence of a population of wolves in Mexico does not negate the need for the Service to ensure for the survival of the population in the wild in the United States. See *Defenders of Wildlife v. Norton*, 258 F.3d 1136, 1145 n. 10 (9th Cir. 2001).

First, as discussed below, the Service’s reliance on the unsustainable reintroduction efforts in Mexico around the time of the rulemaking was misplaced and insufficient to support its conclusion that the sole population in the United States was nonessential. *Infra* Part II(B). But more fundamentally, the Service’s recovery plan is premised on two populations of Mexican wolves—one in the United States and one in Mexico. 2-ER-000124-126; 2-ER-000104-06. Thus, the continued existence of the population in the United States will play a central role in the species’ prospects for recovery. *Id.* It is therefore reasonable to expect that losing one of the two populations identified for the species’ long-term survival, would have some measurable impact on those chances. As explained by David Parsons—the former Mexican Wolf Recovery Coordinator for the Service—the Service intends the experimental Mexican wolf population in the wild to “serve as the population that will achieve the recovery criteria for the United States.” 5-ER-000879. “This statement affirms the requirement that species recovery must occur in the wild, rather than captivity” and this statement “alone should justify the classification of ‘essential’ under ESA Section 10(j).” *Id.*

In sum, if, as here, the experimental population is (1) the *only* experimental population of the species in the wild in the United States, (2) is by regulation defined to be the *only* wild population in the vast majority of the species’ historic

range and remaining viable habitat in the United States,¹¹ and (3) is meant to serve as the *only* population of the species in the wild in the United States once the species is recovered, the experimental population is essential to the continued existence of the species. Reaching any other conclusion would eviscerate the requirement that the Service identify which experimental populations are essential to the continued existence of the species. This, of course, is impermissible. See *United States, ex rel. Polansky v. Exec. Health Res., Inc.*, 599 U.S. 419, 432 (2023) (“[E]very clause and word of a statute’ should have meaning.”); *Pac. Coast Fed’n of Fishermen’s Associations, Inc. v. Nickels*, 150 F.4th at 1271 (“One of our longstanding canons of statutory construction is that we must normally seek to construe Congress’s work so that effect is given to all provisions, so that no part will be inoperative or superfluous, void or insignificant.”) (internal quotations omitted). Therefore, the agency’s failure to designate the experimental population of Mexican wolves as “essential” is arbitrary and capricious, or otherwise not in accordance with the law and should thus be overturned. 5 U.S.C. § 706(2)(A); *State Farm*, 463 U.S. at 43.

¹¹ See *supra* note 6 (explaining Conservation Groups disagree with the Service’s recovery approach but those are the facts relevant here).

II. The Service Failed to Apply Solely the Best Scientific and Commercial Data Available, and the Supporting Factual Basis, in Making its Nonessential Determination.

While the Service's interpretation and application of essentiality is unlawful in its own right, *supra* Part I, the agency's assessment of essentiality in the 2022 Section 10(j) rule was, likewise, legally flawed.

To begin with, when the Service wrote the rule in 2022, the experimental population consisted of nearly 200 wolves, which at the time constituted 100 percent of the wolves in the wild in the United States, 81 percent of the wild population of Mexican wolves in the world, and nearly 31 percent of all wolves in existence (including those in captivity).¹² Despite this, in the revised rule, the Service never seriously dealt with what it would mean to lose that many Mexican wolves (nearly 200) from the world's population, or what impact that might have on the likelihood of the species' survival in the wild. Specifically, the Service failed to explain what it means – in terms of number of individuals, geographic distribution, population dynamics, etc. – for the Mexican wolf to continue to survive in the wild if the experimental population (roughly 200 individuals) were lost. Thus, it is impossible for the Service to have determined what impact losing the experimental population would have on the likelihood of the species' continued existence as the

¹² See *supra* note 5 (documenting population numbers as of 2022).

statute requires. 16 U.S.C. § 1539(j)(2)(B). “It is only logical to require that the agency know roughly at what point survival [l]will be placed at risk before it may conclude” that losing the experimental population would *not* result in an appreciable reduction in the likelihood of the species’ continued survival in the wild. *See Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, 524 F.3d at 936. This fundamental failure to identify the endpoint of the analysis is a fatal flaw.

Nonetheless the Service continued, compounding its error by basing its conclusion on two faulty, unsupported assumptions: (1) that the captive breeding program could, in fact, replace the existing population of wild wolves with no appreciable reduction in the likelihood of survival of the species in the wild; and (2) that the small, unsustainable population of wolves that existed in Mexico at the time the decision was made—but has since been largely extirpated¹³—rendered the only

¹³ *See* U.S. Fish & Wildlife Service, 5-Year Evaluation of the Mexican Wolf Recovery Strategy (December 2024) *available at* https://www.fws.gov/sites/default/files/documents/2024-12/5-year-evaluation-of-the-mexican-wolf-recovery-strategy_508-compliant.pdf (last visited Oct. 13, 2024) (discussing the Mexico population and stating “While there have been Mexican wolf sightings reported in Mexico, we do not have an estimated minimum count for 2023, and Mexico reported zero collared wolves alive in the wild in 2023, mostly due to illegal poisoning.” (emphasis added)). This Court may take judicial notice of this official document because it is an undisputed matter of public record. *See Disabled Rights Action Cmte. v. Las Vegas Events*, 375 F.3d 861, 866 n.1 (9th Cir. 2004) (affirming that court may take judicial notice of government agency documents and other undisputed matters of public record); Fed. Rules of Evidence 201(b)(2) (court may judicially notice a fact that is not subject to reasonable dispute because it can be

wild population in the United States nonessential to the likelihood of the continued survival of the species in the wild. The record does not support the agency's reliance on these factors.

The statute requires the agency to base an essentiality finding on the "best available information." 16 U.S.C. § 1539(j)(2)(B). Likewise, the agency's regulations require the essentiality finding be "based solely on the best scientific and commercial data available, and the supporting factual basis." 50 C.F.R. § 17.81(c)(2). The agency's failure to base its nonessential finding for the experimental population of Mexican wolves on the best available information and scientific facts constitutes legal error.

A. The Service's Assumption that the Captive Population Could Replace the Experimental Population is not Based on the Best Available Information.

The best available information regarding the status of the captive population of Mexican wolves demonstrates that losing the Mexican wolves that currently make up the wild population would appreciably reduce the chances of the species' survival in the wild. That is, the agency's assumption that the captive population could simply

accurately and readily determined from sources whose accuracy cannot reasonably be questioned).

be used to start a new reintroduction effort anew (with a starting wild population in the United States of zero), is not supported by the record.

First, the Service never analyzed the cost of dipping into the captive population to fully replace the experimental population if lost, nor did the Service assess the implications of a full-scale replacement on the species' ultimate survival in the wild. For example, in order to fully understand whether the captive population of roughly 387 Mexican wolves (many of which are too old, genetically unfit, or not available for release¹⁴) is able to replace the experimental population of roughly 200 Mexican wolves, the Service must consider and evaluate certain questions. *Nat. Res. Def.*

Council v. U.S. Env't Prot. Agency, 31 F.4th 1203, 1207 (9th Cir. 2022)

("Unsubstantiated or bare assumptions will not be credited") (cleaned up)). Such issues include: (1) the importance of the wild population and its *in situ* evolutionary adaptive changes; (2) what the loss of the wild population's adaptations over the last 20 years would mean to the species' survival and recovery in the wild; (3) how much

¹⁴ See *Ctr. for Biological Diversity*, 2018 WL 1586651 at *21 (recognizing in 2018 that despite growing to roughly 250 Mexican wolves since 1998, the captive population is "aging" and had already "lost much of its genetic diversity," raising questions as to whether it was still able to replace the wild population if lost and concluding that for these reasons the 1998 nonessential determination did "not satisfy the agency's duty to base its decision on the best available science and information or to articulate a rational connection between the facts found and the conclusion reached."). The facts remain true today. See 5-ER-000878-879 (comments from David Parsons raising similar concerns during the 2022 revised rulemaking process).

genetic diversity would be lost with a loss of the wild population; (4) the logistical, ecological, economic, and social aspects of replacing the wild population from captive wolves and whether the Mexican wolf Species Survival Plan, which manages and oversees the captive breeding program, has the facilities and capacity to accomplish such a feat; (5) how long the replacement would take (i.e., it took over twenty years to get to the current population) and how such a timeframe would affect genetic diversity and other genetic metrics (e.g., founder genome equivalent, mean kinship, etc.); (6) the number of captive wolves needed to replace a lost wild population (at the time of the rule, it would have required over 50 percent of the captive population); (7) political opposition and barriers to release and whether local communities and states would even agree to the release of 100-200 new-to-the-wild wolves; (8) whether the captive breeding program (which is presently over-capacity) can be expanded to address the loss of the wild population; (9) the poor genetic makeup of the captive population (which continues to decline); and (10) the time lapse and changes that have occurred to the captive breeding program since 1998 and the number of suitable captive Mexican wolves capable or even available for release (the program reveals that many wolves in captivity have already been deemed “non-releasable” due to age, health, genetic composition, human habituation, or having already been removed from the wild, among other factors). See 5-ER-

000882-883 (comments from former Mexican Wolf Recovery Program Coordinator David Parsons raising these concerns); 5-ER-000854 (peer reviewer raising concerns whether the captive population could repopulate the experimental population in the wild without proper analysis); 3-ER-000324 (describing captive population's current condition); 4-ER-000611 (describing captive population's genetic status as "genetically depauperate"); 3-ER-000324 (describing projected losses of gene diversity in the captive population); 4-ER-000681 (same). These are just some of the factors that must be evaluated and analyzed—but were not¹⁵—to demonstrate support for the agency's assertion that the captive population could sufficiently replace the experimental population (if lost) such that no appreciable reduction in the likelihood of the species' continued survival in the wild would result, rendering the experimental population nonessential.

¹⁵ The Service never analyzed whether it could replace the wild United States population from a starting point of zero. *See e.g.*, 4-ER-000644 (2017 Population Viability Analysis failing to evaluate a scenario starting from zero); 3-ER-000323 (2022 Breeding and Transfer Plan failing to evaluate the age or ability of captive wolves to be released into a starting wild population of zero; failing to consider the genetics of wild versus captive populations and whether the captive population could fully replicate a new wild population from a starting point of zero). In short, there is nothing in the record to support the agency's conclusion that if the experimental population were lost, the likelihood of the species' survival in the wild would not be appreciably reduced. *See also* 5-ER-000879 (explaining "serious science[,] not guesswork" is required make this conclusion).

Second, the best available information fails to support the Service's assumption that the captive population is faring well enough to restart the reintroduction effort anew, such that no appreciable reduction in the species' likelihood of survival in the wild would result. For example, the Service fails to address the fact that the genetic health of the captive population renders a fresh start to reintroduction questionable. The Service itself has acknowledged that the captive population's "genetically depauperate" state has "been a concern since the beginning of recovery efforts and remain[s] a concern today." 4-ER-000611. Although all existing Mexican wolves descend from seven individuals, the captive population retains the genetic material of approximately three. 3-ER-000334; 3-ER-000402. That means, "[a]s of 2017, Mexican wolves in the United States population were on average as related to one another as siblings." 4-ER-000613. This high degree of relatedness among Mexican wolves leads to high levels of inbreeding, which negatively impacts reproduction. For example, one leading paper found that, in the captive population, higher inbreeding levels decreased the odds that a mated pair of Mexican wolves produced any live offspring, reduced the average litter size when a pair did produce live offspring, and decreased the 180-day survival rates of resulting pups. 4-ER-000806-07.

The Service acknowledges this is a serious issue impacting the overall health of the species. 2-ER-000087 ("We acknowledge that the captive population is based

on a small number of founders with no possibility of new Mexican wolf founders that could add gene diversity, which limits the gene diversity of the captive Mexican wolf population and any wild population initiated with captive wolves.”). The Service also acknowledges “that limited breeding capacity due to the number of captive facilities available for breeding coupled with the social structure of the species (not all wolves are breeders) will affect the rate of loss of gene diversity in the captive population over time.” 2-ER-000087. It is a fact that the captive population, already genetically depauperated, is projected to lose even more gene diversity over time. 3-ER-000324. As such, the best available information indicates that the captive population’s genetic status raises serious questions as to whether the Service can simply restart the reintroduction effort anew by replacing lost wild wolves with those in captivity.

Additionally, the Service assumes that it could simply start reintroducing wolves again without addressing the aging nature of the captive population and the releasability of individual captive wolves. Not all captive wolves are available for release – some are too old, too genetically impoverished, or alternatively, too genetically valuable.¹⁶ For example, sixty percent of the captive population (230/382 individuals) are in the older, two to five-year-old age class, as compared to pups or

¹⁶ See *supra* note 14.

yearlings in the youngest age class. 3-ER-000331 (Figure 4).¹⁷ The Service fails to explain how its assumption that it can simply restart an experimental population anew overcomes these fundamental scientific issues.

In the end, the Service never asked and analyzed the right question – i.e., whether the captive population could be used to restore the experimental population in the wild to such a degree that the species’ likelihood of survival in the wild would not be appreciably reduced. The agency cannot point to any science, study, or report that shows any analysis to support its assumption that the current status of the captive population of Mexican wolves would necessarily allow it to repeat the reintroduction of an entirely new experimental population, with no appreciable impact on the likelihood of survival of the species in the wild. The Service must base its determination on more than mere speculation or surmise. *Nat. Res. Def. Council*, 31 F.4th at 1207. Here, the agency’s reliance on the captive population’s ability to replace the experimental population (if lost) does not address the underlying questions, is not supported by the best available information, and is

¹⁷ See also 5-ER-000881 (explaining that Mexican wolves have been in captivity over a span of ten generations (based on an average generation span for the Mexican wolf of four years) and that conservation geneticists recommend minimizing time in captivity and expediting reintroduction to the wild (citing Hedrick and Fredrickson 2010, Frankham 2008)).

therefore, arbitrary and capricious. 16 U.S.C. § 1539(j)(2)(B); *State Farm*, 463 U.S. at 43.

B. The Service's Reliance on Unsustainable Recovery Efforts in Mexico to Support its Nonessential Finding is not Based on the Best Available Information.

Second, the Service inappropriately relied on a small, unsustainable population of Mexican wolves that existed in the wild in Mexico in 2022 to support its nonessential finding. The Service determined the experimental population was nonessential because there was second population of wild Mexican wolves in Mexico. 2-ER-000050. According to the Service, the “loss of wolves in the MWEPA would not disable Mexico’s ability to achieve recovery.” 2-ER-000087. At the outset, this does not answer the relevant question – namely, whether the loss of the experimental population “would be likely to *appreciably reduce* the likelihood of the survival of the species in the wild,” 50 C.F.R. § 17.80(b) (emphasis added). Whether or not the loss of the experimental population in the United States would “disable” the ability of a foreign nation elsewhere to achieve recovery of the species is beside the point. Here, the proper question with respect to these two alleged “populations”¹⁸ is whether the loss of 81 percent of the Mexican wolves existing in

¹⁸ Former Mexican Wolf Recovery Program Coordinator, David Parsons questioned whether the individual Mexican wolves in the wild qualified as a viable “population.” 5-ER-000879 (explaining “no other viable ‘wild’ population exists”

the wild in the entire world would result in an appreciable reduction of the species' likelihood of survival in the wild. 50 C.F.R. § 17.81(b). Because the answer is certainly yes – by any, let alone the best reading of the term – an essential finding is warranted here. *Supra* Part I; *Loper Bright Ent.*, 603 U.S. at 400.

Further, the best available information relating to the Mexican wolf's survival prospects in Mexico demonstrates that the potential for Mexican wolves' continued existence in the wild there is uncertain, at best. As a result, the Service's reliance on this sole, "second population" to support its nonessential finding was inapt.

Like the captive population, the status of wild Mexican wolves in Mexico is uncertain. The continued existence of wolves in the wild in Mexico is uncertain for a variety of reasons, including: (1) inadequate and inadequately enforced wildlife protection laws in Mexico; (2) the lack of available prey for reintroduced wolves in Mexico; (3) problematic land ownership patterns, such as the fact that most suitable habitat for Mexican wolves is on private (instead of public) lands; and (4) abundant livestock grazing giving rise to conflict situations. 5-ER-000953-956 (Mexican wolf recovery expert Michael Phillips taking issue with Service's reliance on recovery

and excluding the population in Mexico "as not yet viable"); *see also* 5-ER-000815 (peer reviewer of the revised rule questioning the description of the small number of wolves in Mexico as a "population"). *See also supra* note 13 (citing the Service's 5-year report which explained that Mexico reported zero collared Mexican wolves alive in the wild in 2023).

prospects in Mexico); 5-ER-000970 (same); *see also* 5-ER-000815 (peer reviewer of the revised rule expressly questioning the feasibility of the Service's reliance on the recovery of a population in Mexico and concluding that the Service is thus "plac[ing] Mexican wolf recovery in a risk-prone situation").

Indeed, of the first 14 wolves released in Mexico, 11 were killed within just three years, including six confirmed illegal killings, three presumed illegal killings, and one disappearance of unknown cause. 2-ER-000255-256. The Service's own Biological Report underlying the revised rule acknowledges that the Mexican wolf has been assigned the status of "probably extinct in the wild" under Mexican law and that prior to the reintroduction effort that began there in 2011, the existence of any live individuals in the wild had not been confirmed. 4-ER-000592. These facts undercut the Service's reliance on an alleged "second population" in Mexico to justify its nonessential finding for the experimental population in this case.

Notably, experts and peer reviewers of the 2022 rule cautioned the Service against relying too heavily on a highly speculative and overly optimistic recovery effort in Mexico to ensure the continued conservation and survival of the species here in the United States. 5-ER-000953-956; 5-ER-000815. For example, reviewers expressly took issue with the Service's description of the few individual wolves in existence in Mexico at the time of the rule as a "population," and

concluded that reliance “on captive breeding and a foreign source that is at best a marginal genetic resource, and unbound by U.S. laws squarely places Mexican wolf recovery in a risk-prone situation.” 2-ER-119.

These are the facts – constituting the best available information – that were before the agency at the time of its decision. The best available information relating to the viability of a wild population in Mexico does not support the Service’s nonessential finding for the only experimental population in the wild in the United States in the 2022 Section 10(j) rule. Rather, the best available information demonstrates that an appreciable reduction in Mexican wolves’ likelihood of survival in the wild would result if the experimental population were lost. *See supra* Part I(B). The agency failed to consider the best available information relating to the Mexican population and the chances for recovery of the species in the wild in Mexico to succeed, rendering its nonessential finding on this basis arbitrary and capricious as well. 16 U.S.C. § 1539(j)(2)(B); *State Farm*, 463 U.S. at 43.

CONCLUSION

The ESA requires the Service to determine whether an experimental population is essential to the continued existence of the species. 16 U.S.C. § 1539(j)(2)(B). The Service failed to make the proper essentiality finding for the experimental population of Mexican wolves. For the foregoing reasons,

Conservation Groups urge the Court to reverse the challenged rulings of the district court, vacate the Service's nonessential determination in the 2022 Section 10(j) rule for the experimental population of Mexican wolves, and remand this matter back to the agency to conduct a proper analysis complying with the statute and implementing regulations.

Respectfully submitted this 15th day of October, 2025.

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**UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT**

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